

CLAIMS

What is claimed is:

1. A method of assigning service priorities to traffic from a plurality of sources using meters, the method comprising:
5 receiving a packet that is placed into a specific class of service (COS) group;
determining a fabric-adjusted meter modifier depending on technology of a limiting uplink being used; and
adding the fabric-adjusted meter modifier to a meter corresponding to the
10 specific COS group.
2. The method of claim 1, wherein the fabric-adjusted meter modifier is also dependent on a payload size of the packet.
- 15 3. The method of claim 1, further comprising:
determining if the meter exceeds a black-type limit for the specific COS group; and
if the black-type limit is exceeded, then dropping the packet.
- 20 4. The method of claim 1, further comprising:
determining if the meter exceeds a red-type limit for the specific COS group; and
if the red-type limit is exceeded, then lowering a priority level of the
25 packet.
5. The method of claim 1, further comprising:
determining if the COS meter exceeds limit L_m for the specific COS group
and
if the limit L_m is exceeded then perform an action, A_m , specified for limit
30 L_m .

6. The method of claim 2, wherein determining the fabric-adjusted meter modifier comprises retrieving a modifier value associated with the payload size from a technology-specific look-up table.
- 5 7. The method of claim 2, wherein determining the fabric-adjusted meter modifier comprises summing outputs from a plurality of comparators
8. The method of claim 2, wherein determining the fabric-adjusted meter modifier comprises summing outputs from a plurality of comparators with
10 the payload size if specified by a user configurable flag.
9. An apparatus for forwarding traffic from a plurality of sources, the apparatus comprising:
a port for receiving a packet that is placed into a specific COS group;
15 calculation circuitry configured to determine a fabric-adjusted meter modifier depending on a technology of an uplink being used;
update circuitry configured to add the fabric-adjusted meter modifier to a meter corresponding to the specific COS group.
- 20 10. The apparatus of claim 9, wherein the fabric-adjusted meter modifier is also dependent on a payload size of the packet.
11. The apparatus of claim 9, further comprising:
comparison circuitry configured to determine if the meter exceeds a black-
25 type limit for the specific COS group; and
non-forwarding circuitry for dropping the packet if the black-type limit is exceeded.
12. The apparatus of claim 9, further comprising:
30 comparison circuitry configured to determine if the meter exceeds a red-type limit for the specific COS group; and
prioritization circuitry for lowering a priority level of the packet if the red-type limit is exceeded.

13. The apparatus of claim 7, wherein the calculation circuitry comprises a technology-specific look-up table.
- 5 14. The apparatus of claim 7, wherein the calculation circuitry comprises a plurality of comparators and an adder to sum outputs of the comparators.
15. A system for routing traffic from a plurality of sources using class of service (COS) meters, the system comprising:
10 means for receiving a packet that is placed into a specific COS group;
means for determining a fabric-adjusted meter modifier depending on a technology of an uplink being used;
means for adding the fabric-adjusted meter modifier to a COS meter corresponding to the specific COS group.
- 15 16. A method of implementing class of service (COS) functionality in a telecommunications system, the method comprising:
defining a user-configurable function by way of a user interface; and
assigning the user-configurable function to be a meter modifier function
20 associated with a class of service group in the system.
17. The method of claim 16, wherein the user-configurable function depends on a payload size.
- 25 18. The method of claim 16, wherein the user-configurable function depends on a current value of the meter.
19. The method of claim 16, wherein the user-configurable function depends on a last destination of a packet forwarded by the system.
- 30 20. The method of claim 16, wherein the meter function is used to adjust for a fabric uplink technology.

21. A method of implementing class of service (COS) functionality in a telecommunications system, the method comprising:
- defining multiple user-configurable meter modifier functions by way of a user interface; and
- 5 assigning each service class of a set of service classes to one of the user-configurable meter modifier functions.